

CLAIMS:

1. An audio signal processing apparatus comprising an audio input for obtaining an entered audio signal, an audio output for outputting an outgoing audio signal, and a processor for performing a transformation to improve the intelligibility of speech present in the entered audio signal, characterized in that the processor is arranged to obtain a noise level value indicating the extent of noise influencing the intelligibility of a reproduction of the outgoing audio signal, and has the ability of transform the entered audio signal into the outgoing signal by the transformation modeling at least one aspect of the Lombard effect, not being audio signal volume control, based upon the noise level value.
2. An audio signal processing apparatus as claimed in claim 1, characterized in that a microphone and a noise value extractor are present for providing the noise level value from environmental noise to the processor.
3. An audio signal processing apparatus as claimed in claim 1 or 2, characterized in that a noise value characterizer is present for retrieving the noise level value from the entered audio signal.
4. An audio signal processing apparatus as claimed in claim 1 or 3, characterized in that a selection input is present for setting the noise level value to a chosen value.
5. An audio signal processing apparatus as claimed in claim 1 or 3, characterized in that a signal type characterizing means is present for supplying a signal type characterization value to the processor, for enabling the processor to perform the transformation of the entered audio signal depending on the signal type characterization value.
6. An audio signal processing apparatus as claimed in claim 1, characterized in that the transformation changes a spectral contour of the entered audio signal, based upon the noise level value.

7. An audio signal processing apparatus as claimed in claim 1, characterized in that the transformation changes a word length of the entered audio signal, based upon the noise level value.

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8. A television receiver which is able to improve the intelligibility of speech present in an entered audio signal, characterized in that an audio signal processing apparatus is present, comprising an audio input for obtaining an entered audio signal, an audio output for outputting an outgoing audio signal, and a processor for transforming the entered audio
10 signal into the outgoing audio signal by a transformation modeling at least one change to an audio signal selected from aspects of the Lombard effect, based upon a noise level value available to the processor.

9. A radio program receiver which is able to improve the intelligibility of speech
15 present in an entered audio signal, characterized in that an audio signal processing apparatus is present, comprising an audio input for inputting an entered audio signal, an audio output for outputting an outgoing audio signal, and a processor for transforming the entered audio signal into the outgoing audio signal by a transformation modeling at least one change to an audio signal selected from aspects of the Lombard effect, based upon a noise level value
20 available to the processor.

10. A method of increasing the intelligibility of speech in an audio signal, the method comprising:

- a first step of obtaining an entered audio signal;
- 25 - a second step of transforming the entered audio signal into an outgoing audio signal; and
- a third step of outputting the outgoing audio signal, characterized in that the method obtains a noise level value, indicating the extent of noise influencing the intelligibility of a reproduction of the outgoing audio signal, and transforms the entered audio
30 signal into the outgoing audio signal by a transformation modeling at least one aspect of the Lombard effect, not being audio signal volume control, based upon the noise level value.